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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,956	03/21/2008	Akira Takahashi	KAM 22.375 (100799-000124)	9411
26304 7590 07/13/2010 KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585				
EXAMINER				
HANNON, THOMAS R				
ART UNIT		PAPER NUMBER		
3656				
MAIL DATE		DELIVERY MODE		
07/13/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/566,956

Applicant(s)

TAKAHASHI, AKIRA

Examiner

Thomas R. Hannon

Art Unit

3656

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI.08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Interval Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 4/27/06

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Figures 4-8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 4-39412 in view of Nakamura US 4,318,574.

JP412 discloses a shell-type needle roller bearing comprising: a shell (20) with both axial end portions of a cylinder portion bent radially inwards to form a pair of inward flange portions; and a plurality of needles (30) which are provided so as to roll freely on a radial inside portion of

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the cylinder portion between inside surfaces of both inward flange portions, without being retained by a cage (abstract, "having no integrated retainer"), in a state where they are directly adjacent and facing or in contact with the rolling surfaces of circumferentially adjacent needles, on both axial end surfaces of the needles, a portion nearer the center than a beveled portion on an outer peripheral portion, is shaped such that it does not project axially outwards more than an inner peripheral edge of the beveled portion. JP'412 does not disclose inclined surfaces on the inside surfaces of the flanges. Nakamura discloses a cylindrical roller bearing in which the inside surfaces of both inward flange portions (7) make up inclined surfaces (7a, 7b) which are inclined in a direction where a distance between the surfaces becomes narrower towards the radial outward direction, and in a state where the needles are displaced in the axial direction, contact portions between both axial end surfaces of the needles and the inside surfaces of the inward flange portions are positioned at portions close to the radial outside of the inward flange portions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inner surface portions of the flanges of JP'412 to include inclined surfaces for the desired purpose of accurately controlling both the position of the contact point and the amount of the axial movement of the rollers, as taught and suggested by Nakamura.

With respect to claim 2, Nakamura discloses an angle of the inside surfaces of both inward flange portions with respect to a virtual plane which exists in a direction orthogonal to a central axis of the shell, is 3 to 20 degrees, and at both axial end surfaces of the needles, a portion nearer the center than the beveled portion is a flat surface.

With respect to claim 3, Nakamura is seen to disclose the claimed arrangement of the flange distance with respect to the roller diameter. Assuming *arguendo* that Nakamura does not

disclose the claimed parameter ratios, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the flange size relative to the roller diameter, as a matter of routine engineering design.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 4-39412 in view of Nakamura US 4,318,574 as applied to claim 1 above, and further in view of Deutsch US, 3,501,210.

JP'412 does not disclose the needles being affixed to an inner peripheral surface of the shell using grease. Deutsch discloses a full complement set of rollers retained in an inner peripheral surface of the outer race. It would have been obvious to one of ordinary skill in the art at the time the invention was made to affix the rollers in the outer race of JP'412 using grease, because this is taught and suggested by Deutsch as being an old and well known manner of holding the parts in readiness for insertion of a shaft or other inner raceway (Col. 4, lines 39-43).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas R. Hannon whose telephone number is (571) 272-7104. The examiner can normally be reached on Monday-Thursday (8:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard WL Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas R. Hannon/
Primary Examiner, Art Unit 3656